

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/05332

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F27D21/00 F27D1/16

Rec'd PCT/PTO 22 FEB 2005

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F27D C21C B22D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 107 244 A (OCHIAI TSUNEMI ET AL) 15 August 1978 (1978-08-15) claims 1,6-10 column 4, line 7 - line 68 column 5, line 17 - line 26 column 6, line 62 -column 7, line 26 column 8, line 66 -column 9, line 2	1-15
P,X	US 2002/158368 A1 (WIRTH EMIL J) 31 October 2002 (2002-10-31) paragraphs '0044!-'0049!; claims 3,9-12	1-13
A	US 4 649 858 A (NARITA YUJI ET AL) 17 March 1987 (1987-03-17) column 4, line 9 - line 50; claim 1	1-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

11 August 2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 212 738 A (CHANDE ALHAD M ET AL) 18 May 1993 (1993-05-18) claims 1-20 -----	1-15

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No
PCT/EP 03/05332

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4107244	A	15-08-1978	JP 1227178 C	31-08-1984
			JP 51147510 A	17-12-1976
			JP 55005038 B	02-02-1980
			AU 498518 B2	15-03-1979
			AU 1489276 A	22-12-1977
			DE 2626421 A1	16-12-1976
			FR 2314531 A1	07-01-1977
			GB 1539051 A	24-01-1979
			IT 1063328 B	11-02-1985
US 2002158368	A1	31-10-2002	WO 02087819 A1	07-11-2002
US 4649858	A	17-03-1987	JP 1877940 C	07-10-1994
			JP 6005155 B	19-01-1994
			JP 61093384 A	12-05-1986
			AU 566699 B2	29-10-1987
			AU 4843985 A	17-04-1986
			DE 3536113 A1	24-04-1986
			FR 2571835 A1	18-04-1986
			ZA 8507820 A	28-05-1986
US 5212738	A	18-05-1993	AU 1760492 A	17-11-1992
			CA 2105862 A1	13-10-1992
			EP 0579746 A1	26-01-1994
			MX 9201608 A1	01-10-1992
			WO 9218829 A1	29-10-1992